

What Is Claimed Is:

1. An automated teller machine comprising:

a bill recycle machine comprising:

5 a bill deposit/withdrawal port for accepting bills
inputted by a user or delivering bills to the user;

a bill discriminating unit for discriminating bills;

plural bill accommodating boxes that store deposited
bills to be accommodated therein, store bills for withdrawal
10 or store bills that are not used for the deposit and withdrawal
transaction; and

a bill transport path that passes through the bill
discriminating unit for connecting the deposit/withdrawal port
with the bill accommodating boxes; wherein

15 the plural bill accommodating boxes are vertically
superimposed so that bills can be inputted to or delivered from
a front side and a back side of the bill recycle machine and

at least one of the plural bill accommodating boxes has
a accommodating section that is divided into a front-side
20 accommodating section and a rear-side accommodating section
and a push plate that is independently operated to a front side
and a rear side, whereby the front-side staking section and
rear-side accommodating section can store bills of different
denominations.

2. The automated teller machine according to claim 1,
wherein the bill accommodating box having the front-side
accommodating section and rear-side accommodating section is
a recycle box in which both the front-side accommodating section
5 and rear-side accommodating section store bills used for both
deposit and withdrawal.

3. The automated teller machine according to claim 2,
wherein the bill accommodating box having the front-side
10 accommodating section and rear-side accommodating section has
a monolithic structure.

4. The automated teller machine according to claim 3,
wherein the bill accommodating box having the front-side
15 accommodating section and rear-side accommodating section can
be used as any one of a bill accommodating box, a load/recovery
box, a non-circulating box and a storage box depending upon
a position of installation in the deposit/withdrawal machine.

20 5. The automated teller machine according to claim 3,
wherein the bill accommodating box having the front-side
accommodating section and rear-side accommodating section can
be defined to be used as any one of the bill accommodating box,
load/recovery box, non-circulating box and storage box
25 regardless of the position of installation in the

deposit/withdrawal machine.

6. The automated teller machine according to claim 4, comprising a function for delivering, from the non-circulating box, bills that are discriminated to be unusable for the withdrawal transaction at the bill discriminating unit and using them for the withdrawal transaction if they are discriminated to be usable for the withdrawal transaction at the bill discriminating unit.

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7. The automated teller machine according to claim 5, comprising a function for delivering, from the non-circulating box, bills that are discriminated to be unusable for the withdrawal transaction at the bill discriminating unit and using them for the withdrawal transaction if they are discriminated to be usable for the withdrawal transaction at the bill discriminating unit.

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8. The automated teller machine according to claim 2, wherein the front-side accommodating section and rear-side accommodating section of the bill accommodating box are separated from each other to be independent.

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9. The automated teller machine according to claim 8, wherein the bill accommodating box having the front-side

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accommodating section and rear-side accommodating section can be used as any one of the bill accommodating box, load/recovery box, non-circulating box and storage box depending upon the position of installation in the deposit/withdrawal machine.

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10. The automated teller machine according to claim 8, wherein the bill accommodating box having the front-side accommodating section and rear-side accommodating section can be defined to be used as any one of the bill accommodating box, load/recovery box, non-circulating box and storage box regardless of the position of installation in the deposit/withdrawal machine.

11. The automated teller machine according to claim 9, comprising a function for delivering, from the non-circulating box, bills that are discriminated to be unusable for the withdrawal transaction at the bill discriminating unit and using them for the withdrawal transaction if they are discriminated to be usable for the withdrawal transaction at the bill discriminating unit.

12. The automated teller machine according to claim 10, comprising a function for delivering, from the non-circulating box, bills that are discriminated to be unusable for the withdrawal transaction at the bill discriminating unit and using

them for the withdrawal transaction if they are discriminated to be usable for the withdrawal transaction at the bill discriminating unit.

5 13. The automated teller machine according to claim 1, wherein the accommodating section is arranged on the bill transport path that connects the front side with rear side of the accommodating section, wherein bills delivered from the front-side accommodating section can be moved to the rear-side
10 accommodating section to be stored and bills delivered from the rear-side accommodating section can be moved to the front-side accommodating section to be stored.

 14. The automated teller machine according to claim 2,
15 wherein the accommodating section is arranged on the bill transport path that connects the front side with rear side of the accommodating section, wherein bills delivered from the front-side accommodating section can be moved to the rear-side accommodating section to be stored and bills delivered from
20 the rear-side accommodating section can be moved to the front-side accommodating section to be stored.

 15. The automated teller machine according to claim 8, wherein the accommodating section is arranged on the bill
25 transport path that connects the front side with rear side of

the accommodating section, wherein bills delivered from the front-side accommodating section can be moved to the rear-side accommodating section to be stored and bills delivered from the rear-side accommodating section can be moved to the front-side accommodating section to be stored.

16. An operation method of an automated teller machine provided with plural bill accommodating boxes that are vertically superimposed to have a construction that bills can be inputted to and delivered from a front side and a back side of a bill recycle machine and at least one of the plural bill accommodating boxes has a accommodating section that is divided into a front-side accommodating section and a rear-side accommodating section and a push plate that is independently operated to a front side and a rear side, whereby the front-side staking section and rear-side accommodating section can store bills of different denominations, comprising the steps of:

deciding that one of the bill accommodating boxes is used as a load box;

deciding that another one or other plural boxes are used as recycle boxes; and

setting bills that are to be accommodated into one of the front-side and rear-side accommodating sections of the recycle box are set to the other one of the front-side and rear-side accommodating sections of the load box.

17. An operation method of an automated teller machine provided with plural bill accommodating boxes that are vertically superimposed to have a construction that bills can be inputted and delivered from a front side and a back side of a bill recycle machine and at least one of the plural bill accommodating boxes has a accommodating section that is divided into a front-side accommodating section and a rear-side accommodating section and a push plate that is independently operated to a front side and a rear side, whereby the front-side accommodating section and rear-side accommodating section can store bills of different denominations, comprising the steps of:

deciding that at least a part of the bill accommodating boxes is used as a non-circulating box;

deciding that another one or the other plural bill accommodating boxes are used as recycle boxes;

passing bills that cannot be discriminated at the time of a withdrawal transaction to thereby be stored in a temporary storage box through the bill discriminating unit for discriminating again a denomination and authenticity thereof;

storing bills that are discriminable at the discrimination step into the recycle box; and

storing bills that are indiscriminable at the discrimination step into the non-circulating box.

18. An operation method of an automated teller machine provided with plural bill accommodating boxes that are vertically superimposed to have a construction that bills can be inputted and delivered from a front side and a back side of a bill recycle machine and at least one of the plural bill accommodating boxes has a accommodating section that is divided into a front-side accommodating section and a rear-side accommodating section and a push plate that is independently operated to a front side and a rear side, whereby the front-side staking section and rear-side accommodating section can store bills of different denominations, comprising the steps of:

deciding that the plural bill accommodating boxes are used as recycle boxes;

allocating the recycle box per denomination; and

deciding that one of the front-side and rear-side of the bill accommodating box allocated as the recycle box per denomination is used for a accommodating section for current bills and the other one is used for a accommodating section for newly designed bills.